

**Availability and Use of Health Information Technology
in Nursing Homes
University of Pittsburgh
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To determine the prevalence and use of health information technology (HIT) in U.S. nursing homes, the research team will undertake a national survey of nursing home administrators and professional staff. In preparation for the survey, they will identify care processes that clinical and administrative leaders in nursing homes believe would benefit from integration into an HIT system. The team will also determine what clinical applications are included in the current software packages used by providers. The survey questions will focus on the extent to which HIT is already in use in nursing homes and whether providers are taking full advantage of their HIT systems. Information gleaned from this study will enable the team to identify activities and policies that could hasten nursing homes' adoption of HIT and improve its utilization.

Background: All nursing homes use health information technology (HIT) to some extent. In addition to having information systems for financial management purposes, all nursing homes transmit the federally required Minimum Data Set (MDS)—a comprehensive assessment of each resident's functional capabilities that also helps staff identify health problems—to the Centers for Medicare and Medicaid Services. A national survey has found, however, that nursing homes are using advanced features included on most MDS automation software less than a third of the time. In another survey, only about 20 percent of California nursing home providers reported using HIT to assist with clinical care processes.

The Project: Under the direction of Howard B. Degenholtz, Ph.D., associate professor at the University of Pittsburgh's Graduate School of Public Health, this project will:

- Identify those clinical care processes that nursing home managers and clinician experts believe can benefit from HIT, such as medication management and prompt and reminder systems.
- Conduct a market scan of HIT software for nursing homes to determine what advanced clinical care process applications are included, the degree of

interoperability that exists to facilitate information exchange, and the type of technical support provided to purchasers.

- Develop and field a national survey to ascertain the prevalence and use of HIT in nursing homes.¹ The survey sample will be stratified by two factors that are hypothesized to affect HIT adoption in nursing homes: whether the facility is chain-affiliated or independent, and whether it is hospital-based or freestanding. The project team will analyze the survey results to identify where there are gaps in HIT use and to understand how and why existing applications are underutilized.

Project staff will prepare manuscripts for journal submission, along with a report for potential Fund publication. In addition, several presentations are planned to inform providers and HIT system vendors of study results.

Expected Outcomes, Risk, and Staff Effort: This project will produce a vetted list of care processes that could be improved through use of HIT. Results will be shared with vendors and software developers so that the next generation of HIT systems include the most critical clinical applications and the technical support necessary to ensure their full use. In addition, regulators and industry experts will be better informed about the extent to which HIT is being used in nursing homes, and about facility characteristics that affect its adoption.

¹ Administrators and directors of nursing will receive a mailed survey, while physicians and other clinicians will be surveyed online.